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The experimental Australian Labour Account

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Introduction

The Australian Labour Account provides a set of core macro-economic labour market variables derived through data integration, with both an industry focus and time series dimension.

It builds on the International Labour Organisation (ILO) fundamentals and expands them to ensure consistency with the System of National Accounts (2008 SNA). The Labour Account also extends the analytical utility of National Accounts data, through providing a labour market-specific perspective.

Development

The experimental Australian Labour Account has been developed to provide a framework for integrating data from a number of sources (including household survey, business survey, and administrative data). The result is internally consistent estimates of key labour market variables, which more effectively enable the description and analysis of the state and dynamics of the Australian labour market. These core variables can help users make sense

of seemingly inconsistent labour related data, which are often based on different reference periods, populations, concepts, definitions and methodologies.

These inconsistencies are magnified when data are dis-aggregated by industry or sector, or in analysis requiring the combination of data from both business and household sources, for example combining output and hours worked by industry to derive industry productivity growth rates. There is a risk that users may draw inappropriate conclusions from the use of different labour statistics without an informed understanding of which data to use in which circumstances.

For example, consider the following questions:

How many people are employed in Australia?

It depends on when you ask this, who you ask, and how you ask the question.

Based on the answers provided by "responsible adults" from the households where workers live, the basic approach used in the Labour Force Survey, there were 11.9 million people employed in Australia in June 2016.

Based on the answers provided by "responsible representatives" of businesses and other enterprises where they work, the approach adopted in business surveys, there were 12.9 million filled jobs in Australia in June 2016.

Why are the two figures different?

First, they are counting different things - for example, the Labour Force Survey asks about a person's main job to identify employed and unemployed people, and people not in the labour force. However, a person holding two jobs will be counted twice in a business survey, once by each employer. Business surveys measure the number of "filled jobs", not the number of employed people.

When people in households were asked how many jobs they have, they told the ABS in June 2016 they had 12.7 million. Businesses reported they had 12.9 million filled jobs, which was 200,000 (or 1.6%) more than reported by households in the monthly Labour Force Survey.

The second reason for the difference is that, in line with international standards, not everyone who has a job is in the scope of the Labour Force Survey. Similarly, some forms of work are not captured by reporting businesses.

People whose main job is in the permanent military forces are not reported by either businesses or households, and household representatives are not asked to report on jobs held by people intending to stay in Australia for less than 12 months. No employment by children under 15 years, either paid or unpaid, is reported by households. In addition, unpaid contributions of work to a family business or farm by family members of any age are not reported by businesses. If the ABS adjusts for these known differences, then the number of filled jobs reported by businesses would be raised to 13.1 million, and the number of filled jobs reported by households would increase to 13.2 million.

The remaining difference of 100,000 jobs, or 1% of the household based estimate, reflects the unavoidable measurement limitations related to measuring filled jobs and employment.

- Likely sources of measurement error in household based data include lack of knowledge about the jobs held by household members on the part of the person responding to the Labour Force Survey.
- On the business survey side, there is no single ABS business survey that collects employment data from businesses across the whole economy, and business based estimates of filled jobs are compiled from multiple sources, potentially resulting in a larger overall total measurement error than in any of the individual sources.
- Both business and household surveys are also subject to sampling variability.
 Divergences can further arise when estimating missing data, or modelling is required to offset data gaps and lags in the supply of information.

How many hours were worked in Australia during 2016?

Based on hours worked reported by households, and after adjusting for defence force personnel, short-term visitors and children: 20,278.0 million hours were worked in 2016. Businesses reported the number of "hours paid for" at 21,044.9 million hours. These numbers imply that hours paid for but not worked, mainly various forms of paid leave, exceeded hours of unpaid overtime (hours worked but not paid for). This pattern was consistent over time at a whole of economy scale.

Labour Account framework

The Labour Account provides a conceptual framework through which existing labour market data from diverse sources can be confronted and integrated, with the aim of producing a coherent and consistent set of aggregate labour market statistics.

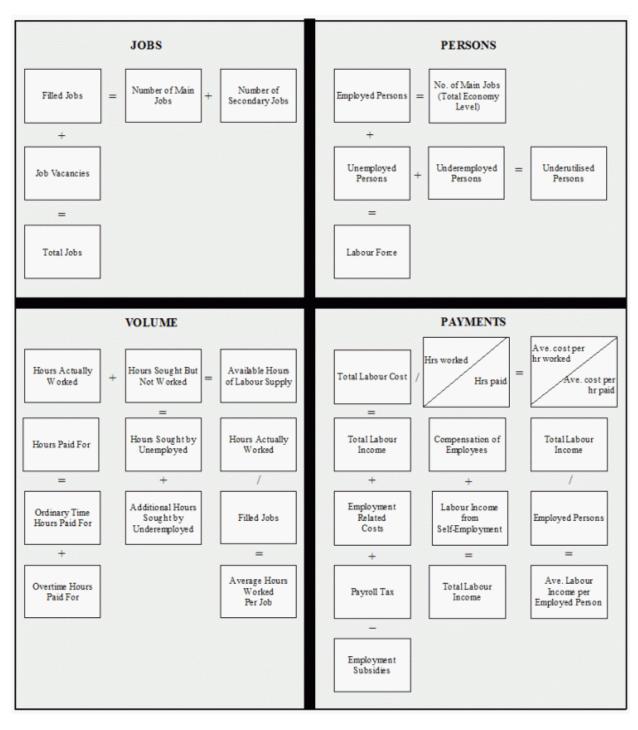
The Labour Account helps address data coherence by:

- bringing together related labour statistics from multiple sources in a single set of tables;
- applying a consistent set of concepts across the data to explore statistical anomalies;

- making transparent adjustments to data to offset conceptual and scope differences; and
- making further informed and documented data adjustments to provide a balanced set of labour statistics.

The Labour Account consists of four quadrant tables: jobs, persons, volume and payments (see figure 1). Data in each table are available annually, and for 19 high level industry groupings.

Figure 1: Australian Labour Account identity relationships – jobs, persons, volume and payments



The Jobs quadrant provides statistics on numbers of filled jobs derived separately from business and household sources, plus data on vacant jobs to provide a total number of jobs in the economy.

The Persons quadrant includes statistics on numbers of employed persons, together with data on numbers of unemployed and underemployed persons.

The Labour Volume quadrant provides statistics on hours paid for (derived from business data) and hours worked (from household sources), plus data on additional hours of work sought by unemployed and underemployed persons.

The Labour Payments quadrant provides statistics on labour income and employment costs.

The Labour Account is able to combine data from the jobs, persons, volume and payments tables to calculate average hours worked, average remuneration (per person and per job), and average labour costs per job.

The scope of the Australian Labour Account is consistent with that of the national economy, as defined in the Australian System of National Accounts (ASNA), which follows the international standard set out in the United Nations System of National Accounts. The Labour Account includes all jobs created by enterprises engaged in the production of goods and services that fall within the scope of the National Accounts "production" boundary, operating within Australia's economic territory.

Labour Account employed persons are defined as all people who hold one or more of those jobs. Hours worked and paid for relate to productive activity in those jobs. Labour income relates to earnings derived from employment in those jobs and includes both Compensation of Employees, as defined in the ASNA, plus an estimate of the labour related component of Gross Mixed Income. Labour costs relate to net employment related expenditure by businesses incorporating both labour remuneration, employment related intermediate consumption, and employment related net taxes.

The data sources used to compile Labour Account statistics do not always align completely with the ASNA. The household Labour Force Survey, for example, excludes permanent defence force personnel, short-term working visa holders and children under 15 from its count of employed persons, all of whom fall within the scope of the Labour Account and ASNA concept of employed persons. The Labour Account tables include "adjustments" to bridge the conceptual and scope gaps between the ASNA standard and the principal data

sources. For example data obtained from the Commonwealth Government are used to "add in" defence force personnel. Commonwealth data on short term visa arrivals and departures are used to estimate the stock of potential employed persons in this category. Labour force participation and employment rates for resident cohorts with similar characteristics are used to estimate numbers of working short-term visitors. These adjustment methodologies are fully documented in the "Australian Labour Account: Concepts, Sources and Methods (https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) ".

Finally, the Labour Account includes balanced estimates of filled jobs, employed persons, hours worked and hours paid for that adjust for the remaining sampling and non-sampling error. These adjustments are based on analysis of data for each industry, making use of employment related statistics on production, taxes, wages and salaries to assess the relative plausibility of competing estimates.

Uses

The Labour Account provides a time series of estimates of the number of employed persons, the number of jobs, hours worked and the income earned for each industry in one coherent framework. Historically, published statistics on employed persons in each industry have only been available for industry of main job. The expanded scope and additional data sources used in the Labour Account includes data for multiple job holders by industry of second, third and fourth job. For the first time, this enables an industry perspective of the total number of people employed in each industry in a time series. This could be used to better assess policy changes targeting a particular industry, providing a more realistic picture of the number of people impacted by the change.

The provision of time-series data on employment, hours and earnings, that are conceptually aligned with the Australian System of National Accounts data, will help improve macroeconomic analysis and forecasting.

Consistent data on employment, hours and incomes will assist in assuring the quality of national accounts production and income data. A better alignment of hours worked with production (gross output and gross value added) at an industry level will improve the reliability of both labour and multi-factor productivity statistics.

The Labour Account is a complement to the existing suite of labour statistics. Users should continue to use the <u>Labour Force Australia (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main+Features1Nov%202019?OpenDocument)</u> (cat. no. 6202.0) for headline employment, unemployment and persons not in the labour force as this is the data suite

that is internationally comparable and aligned with International Labour Organisation conventions. If users require detailed dynamics essential for analysis of individual or household characteristics, such as household type, age, sex, income, occupation and educational qualifications, they should use the source data.

The Labour Account should be used for industry analysis of labour growth and performance in terms of people, jobs, hours and income.

Labour Account tables are likely to be of most value to people engaged in the use of labour statistics in macro-economic analysis, forecasting and in policy related research.